

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** STP00-2564-00(004), Forsyth, Fulton, Gwinnett      **OFFICE:** Engineering Services  
P.I. No.742920  
McGinnis Ferry Road @ Chattahoochee River      **DATE:** April 16, 2009

**FROM:** Ronald E. Wishon, State Project Review Engineer

**TO:** Brent A. Story, P.E., State Road Design Engineer  
Attention: Brad McManus, Project Manager

**SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES**

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
<b>BRIDGE</b>				
A-4	Reduce the length of Span 1 to 71-feet by replacing the 2:1 Enroll with a Wall End Bent.	\$174,630	No	The projected cost savings may not actually be totally realized just by shortening the bridge. There would be increased costs due to more wall area, coping, traffic barrier and redesign. Any redesign would delay the June 16, 2009 Let date.
<b>ROADWAY</b>				
B-2	Reduce lane widths from 12-feet to 11-feet. Note: This alternate is linked to Alternate E-4.	\$298,197	No	The traffic on this road is 57,600 ADT for the design year. This facility will be near capacity during the design year and any decrease in lane width will cause delays.

ROADWAY - Continued				
C-1	Lower the profile to reduce the amount of Fill from STA. 423+00 to 439+00.	\$44,649	No	The designed profile was set to provide an improvement of the existing profile. It was raised in the area at the bridge to provide clearance for the proposed Multi-Use Trail under the bridge. This Multi-Use Trail is a mitigation effort by the Department for taking National Park Service property. The plans have been designed and there would be redesign cost that include all plan sheets as well as drainage redesign and recalculation of quantities. In addition, the proposed Management Let Date of June 19, 2009 does not allow adequate time for a redesign. Any shift in Let date will cause user delays.
E-4	Reduce the amount of Graded Aggregate Base (GAB) by reducing the lane widths from 12-feet to 11-feet. Note: This alternate is linked to Alt.B-2.	\$21,020	No	Please see Response for Alternative B-2.
F-1	Eliminate the use of foundation backfill material in the embankment.	\$272,160	No	Type II Foundation Backfill Material is necessary to provide stability of the sub-grade in the case that the bottom of the excavation is wet and unstable. In addition the Granular Material required for Granular Embankment is recommended in the Coastal Area and this project is located in the Piedmont Area and not easily available. OMR concurred with this assessment.

ROADWAY Continued				
F-2	Replace Foundation Backfill with Granular Embankment.	\$191,160	No	Type II Foundation Backfill Material is necessary to provide stability of the sub-grade in the case that the bottom of the excavation is wet and unstable. In addition the Granular Material required for Granular Embankment is recommended in the Coastal Area and this project is located in the Piedmont Area and not easily available. OMR concurred with this assessment.
I-2	Reduce 20-foot raised median to a 16-foot raised median.	\$58,346	No	This project completes the widening of McGinnis Ferry Road up to Peachtree Industrial Blvd. for a distance of 0.7 miles. Implementation of this recommendation would alter the consistency of the corridor for this short stretch by introducing a lane transition in an otherwise symmetrical design plus the cost effectiveness of adding lanes in the future (57,600 ADT in Design Year). Right of Way has already been acquired on the north side of the road, minimizing potential RW savings. The plans have been designed and there would be redesign cost that includes all plan sheets as well as bridge and drainage redesign and recalculation of quantities.
M-1	Replace Concrete Side Barrier (Wall No. 2), with MSE Wall.	\$62,752	No	The VE team did not add coping at the top of the MSE wall which will be required. This adds \$250/linear foot thereby raising the cost of the wall above that of the Type 2C Side Barrier shown in the plans.



ROADWAY Continued				
M-2	Use Wall End Bent on Bent No. 1 (see recommendation A-4).	\$104,500	No	Please see Response for Alternative A-4.
O-3	Replace Concrete Side Barrier (Wall No. 3), with MSE Wall.	\$40,000	No	This wall runs 12' high for roughly 100 feet with the bottom elevation and top elevation changing often. This means that special forms need to be made for the bottom and top thereby raising the cost and eliminating the savings of \$40,000. In addition to this the cost of redesign would also add a few thousand dollars.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved:  Date: 4/17/00  
 Gerald M. Ross, P. E., Chief Engineer

REW/DMF

#### Attachments

c: Genetha Rice-Singleton  
 Brent Story  
 Jason Cook  
 Brad McManus  
 Paul Liles  
 Bill Ingalsbe  
 Bill DuVall  
 Mickey McGee  
 Randy Davis  
 Ken Werho  
 Lisa Myers  
 Douglas Fadool  
 General Files

VE Team: Tony Belcher  
 Erik Rohde  
 Vinesha Pegram  
 Peter Eze

# DEPARTMENT OF TRANSPORTATION

## STATE OF GEORGIA

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### INTERDEPARTMENT CORRESPONDENCE

**FILE** STP00-2564-00(004) Forsyth, Fulton, Gwinnett      **OFFICE** Road Design  
P.I. No. 742920-  
McGinnis Ferry Rd @ Chattahoochee River      **DATE** April 16, 2009

**FROM** Brent A. Story, P.E., State Road Design Engineer

**TO** Ron Wishon, Project Review Engineer  
**Attention:** Lisa Myers, Design Review Engineer Manager/VE Coordinator

**SUBJECT** V.E. STUDY RESPONSES

A Value Engineering Study was held for project STP00-2564-00(004) from January 26<sup>th</sup> through the 30<sup>th</sup> of 2009. Attached are the recommendations of the Study Team from the VE Report, dated February 18, 2009, as well as the Office of Road Design's responses regarding their implementation. Due to the current Management Let Date for this project of June 19, 2009, it is requested that an Implementation Meeting be scheduled as soon as possible in order to discuss the Department's decisions regarding those recommendations so that the implementation can be included into the project plans.

Should you have any questions or need any additional information, please contact Brad McManus at (404)631-1630 or via email @ [bmcmanus@dot.ga.gov](mailto:bmcmanus@dot.ga.gov).

BAS:MBM:rlr

Attachments

## **Road Design's Responses to VE Study Report Recommendations**

**GDOT Project No: STP00-2564-00(004)**

**Forsyth, Fulton & Gwinnett Counties**

**PI No. 742920-**

### **Alternative –A-4**

**Description:** To shorten the Bridge

**Cost savings:** \$174,000

**Response:** The projected cost savings may not actually be totally realized just by shortening the bridge. There would be an increase in wall area and costs as well as cost in coping and traffic barrier. The bridge has been designed and any redesign would mean delays in the Letting of the project (Management Let Date of June 16, 2009) which would relate to a substantial increase in the user cost as well as the engineering cost to redesign.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

### **Alternative B-2**

**Description:** Reduce Lane width from 12 feet to 11 feet

**Cost Savings:** \$298,197

**Response:** The traffic on this road is 57,600 ADT for the design year. This facility will be near capacity during the design year and any decrease in lane width will cause delays. The B/C Ratio for this project is 3.96 with a total Congestion benefit of approximately \$44,000,000. Also any redesign would mean delays in the Letting of the project (Management Let Date of June 16, 2009) which would relate to a substantial increase in the user cost as well as the engineering cost to redesign.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

### **Alternative C-1**

**Description:** To Adjust Profile for Grading

**Cost Savings:** \$44,649

**Response:** The designed profile was set to provide an improvement of the existing profile. It was raised in the area at the bridge to provide clearance for the proposed Multi-Use Trail under the bridge. This Multi-Use Trail is a mitigation effort by the Department for taking National Park Service property. The plans have been designed and there would be redesign cost that include all plan sheets as well as drainage redesign and recalculation of quantities. In addition, the proposed Management Let Date of June 19, 2009 does not allow adequate time for a redesign. Any shift in Let date will cause user delays.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.



**Alternative E-4**

**Description:** To reduce the amount of GAB by going from 12 feet to 11 foot lanes.

**Cost Savings:** \$21,020

**Response:** Please see Response under Alternative B-2.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

**Alternative F-1**

**Description:** To Eliminate the Use (Bid Cost) of Foundation Backfill Material.

**Cost Savings:** \$272,160

**Response:** Type II Foundation Backfill Material is necessary to provide stability of the sub-grade in the case that the bottom of the excavation is wet and unstable. In addition the Granular Material required for Granular Embankment is recommended in the Coastal Area and this project is located in the Piedmont Area and not easily available. OMR concurred with this assessment. Plan note concerning placement of Type II Foundation Backfill Material in wet areas will be revised to eliminate the phrase "it is recommended that" to make the replacement with drier soils mandatory. Based on GDOT Construction Specification 210.4.C, the quantities for Type II Foundation Backfill will be paid for under the pay item Grading Complete.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

**Alternative F-2**

**Description:** Replace Foundation Backfill Material with Granular Embankment.

**Cost Savings:** \$191,160

**Response:** Type II Foundation Backfill Material is necessary to provide stability of the sub-grade in the case that the bottom of the excavation is wet and unstable. In addition the Granular Material required for Granular Embankment is recommended in the Coastal Area and this project is located in the Piedmont Area and not easily available. OMR concurred with this assessment.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

**Alternative I-2**

**Description:** Reduce 20 ft Raised Median to 16 ft Raised Median

**Cost Savings:** \$58,346

**Response:** This project completes the widening of McGinnis Ferry Road up to Peachtree Industrial Blvd. for a distance of 0.7 miles. Implementation of this recommendation would alter the consistency of the corridor for this short stretch by introducing a lane transition in an otherwise symmetrical design plus the cost effectiveness of adding lanes in the future (57,600 ADT in Design Year). Right of Way has already been acquired on the north side of the road, minimizing potential RW savings. The plans have been designed and there would be redesign cost that include all plan sheets as well as bridge and drainage redesign and recalculation of quantities. In addition, the proposed Management Let Date of June 19, 2009 does not allow adequate time for a redesign. Any shift in Let date will cause user delays.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

**Alternative M-1**

**Description:** Replace Concrete Side Barrier (Wall 2) with MSE Wall

**Cost Savings:** \$62,752

**Response:** The VE team did not add coping at the top of the MSE wall which will be required. This adds \$250/linear foot thereby raising the cost of the wall above that of the Type 2C Side Barrier shown in the plans.

**The recommendation of the Road Design Office is:** Not to implement this recommendation

**Alternative M-1**

**Description:** Use Wall endbent on bent 1 (see recommendation A-4)

**Cost Savings:** \$104,500

**Response:** Please see Response on Alternative A-4.

**The recommendation of the Road Design Office is:** Not to implement this recommendation.

**Alternative O-3**

**Description:** Replace Concrete Side Barrier (Wall 3) with MSE Wall

**Cost Savings:** \$40,000

**Response:** This wall runs 12' high for roughly 100 feet with the bottom elevation and top elevation changing often. This means that special forms need to be made for the bottom and top thereby raising the cost and eliminating the savings of \$40,000. In addition to this the cost of redesign would also add a few thousand dollars.

**The recommendation of the Road Design Office is:** Not to implement this recommendation



# PRECONSTRUCTION STATUS REPORT FOR PI:742920-

CR I319/MCGINNIS FERRY RD@CHATTAAHOOCHEE RVR/FORSYTH/GWINNETT

MGMT LET DATE : 06/19/2009  
 MGMT ROW DATE : 09/21/2007  
 SCHED LET DATE : 9/18/2009  
 WHO LETS?: GDOT Let  
 LET WITH :

DOT DIST: 1, 7  
 CONG. DIST: 6, 7  
 BIKE: Y  
 MEASURE: E  
 NEEDS SCORE: 04  
 BRIDGE SUFF: \$4.00

MPO: Atlanta TMA  
 TIP #: FN-233C  
 MODEL YR : 2010  
 TYPE WORK: Bridges  
 CONCEPT: Replacement  
 PROV. TYPE: N  
 Prov. for ITS: N  
 BOND PROJ :

PROJ ID : 742920-  
 COUNTY : Forsyth, Fulton,  
 LENGTH (MI) : 6.88  
 PROJ NO.: STP00-2564-00(004)  
 PROJ MGR: McManus, Brad  
 OFFICE : Road Design  
 CONSULTANT: Local Design, Local PE funds  
 SPONSOR : Gwinnett County  
 DESIGN FIRM: Moreland Altobelli Associates, Inc.

SCHED		SCHED	ACTIVITY	ACTUAL	ACTUAL	%	PROGRAMMED FUNDS					STIP AMOUNTS		
START	FINISH			START	FINISH		Phase	Approved	Proposed	Cost	Fund	Status	Cost	Fund
			Concept Development	12/6/2004	9/13/2005	100	PE	LOCL	LOCL	200,000.00	LOC	PRECST		
			PM Submit Concept Report	12/13/2004	12/13/2004	100	ROW	LOCL	LOCL	829,000.00	LOC	PRECST		
			Receive Preconstruction Concept Approval	8/18/2005	8/18/2005	100	CST	2009	2009	10,634,000.00	OTH	PRECST		
			Management Concept Approval Complete	8/25/2005	9/2/2005	100								
		5/5/2009	Value Engineering Study	9/7/2005	9/13/2005	82								
			Public Information Open House Held	11/3/2008	10/8/2005	100								
		6/18/2009	Environmental Approval	10/7/2005	10/8/2005	100								
			Pub Hear Held/Comm Resp (EA/FONSI, GEPA)	12/10/2004	3/11/2008	99								
			Mapping	3/10/2008	1/12/2000	100								
			Field Surveys/SDE	1/3/2000	1/12/2000	100								
			Preliminary Plans	8/15/2005	12/21/2007	100								
			Preliminary Bridge Design	9/13/2005	7/2/2007	100								
			Underground Storage Tanks	5/7/2006	5/12/2006	100								
4/24/2009		9/3/2009	404 Permit Obtainment	12/17/2007	3/4/2008	0								
			PFPR Inspection	7/31/2007	7/31/2007	100								
			R/W Plans Preparation	7/31/2007	9/5/2007	100								
		5/27/2009	R/W Plans Final Approval	9/12/2007		95								
6/22/2009		6/24/2009	L & D Approval			0								
5/28/2009		7/23/2009	R/W Acquisition			0								
6/29/2009		7/3/2009	Stake R/W			0								
			Soil Survey	12/27/2005	10/26/2006	100								
			Bridge Foundation Investigation	11/30/2007	1/28/2008	100								
			Final Design	2/1/2007	1/30/2008	88								
			Final Bridge Plans Preparation	8/31/2007	1/17/2008	100								
5/22/2009		5/25/2009	PFPR Inspection			0								
6/8/2009		6/19/2009	Submit PFPR Responses (OES)			0								

District Comments  
 FORSYTH/FUL.TON/GWINNETT (11/15/04) NO ACTIVITY. 4/18/05)CTM TO BE HELD IN  
 MAY. Waiting on Concept Revisions 7-26-05

PDD: NEED 99 PE. 4/13/98. PE by Forsyth. 1/23/05.  
 Bridge: WEI 02/04/08 CONSUL - MA&A (FINAL PLANS SENT 01/24/08)  
 Design: MBM:MAA/FFPR 2-8-08/Plans OK/VE held/Env Doc with NPS(3-09)  
 EIS: FONSI-4F NotApvd05-27-08/ NowStatefunded/ NotOnSchdLctund09/ Alimnia 03/13/09  
 LGPA: PMA SGN FORSYTH/FUL.TON/GWINNETT DO PE[ROW/UTIL. 11-21-05.  
 Planning: CR I319/McGinnis Ferry Rd. @ Chattahoochee River/Forsyth/Gwinnett is on the Forsyth Co. Bike/Ped Plan  
 Pg 74

Programming: GOES WITH PI # 0004429. Project no longer qualifies for FEDS changed fund to other until fund source is decided 1-12-09  
 ROW: See PI 0004429 - Plan approval need EIS approval kta  
 Traffic Op: FFPR sent 1/28/09 kw/nr  
 Utility: DISTRICT READY 03/17/08  
 EMG: RECST/REHAB (BRIDGES)

Prel. Parcel CT:	10	Total Parcel in ROW System:	10	Cond. Filed:	0	Acquired by:	LOC	DEEDS CT:	9
Under Review:	0	Options - Pending:	0	Relocations:	0	Acquisition MGR:	Byers, Kim (LOC)		
Released:	10	Condemnations- Pend:	0	Acquired:	9	R/W Cert Date:			

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## PLAN AND PROFILE OF PROPOSED MCGINNIS FERRY ROAD OVER THE CHATTAHOOCHEE RIVER

GWINNETT COUNTY, FORSYTH COUNTY, FULTON COUNTY  
PROJECT NO. STP00-2564-00(004)

P.I. NO. 742920  
STATE AID PROJECT



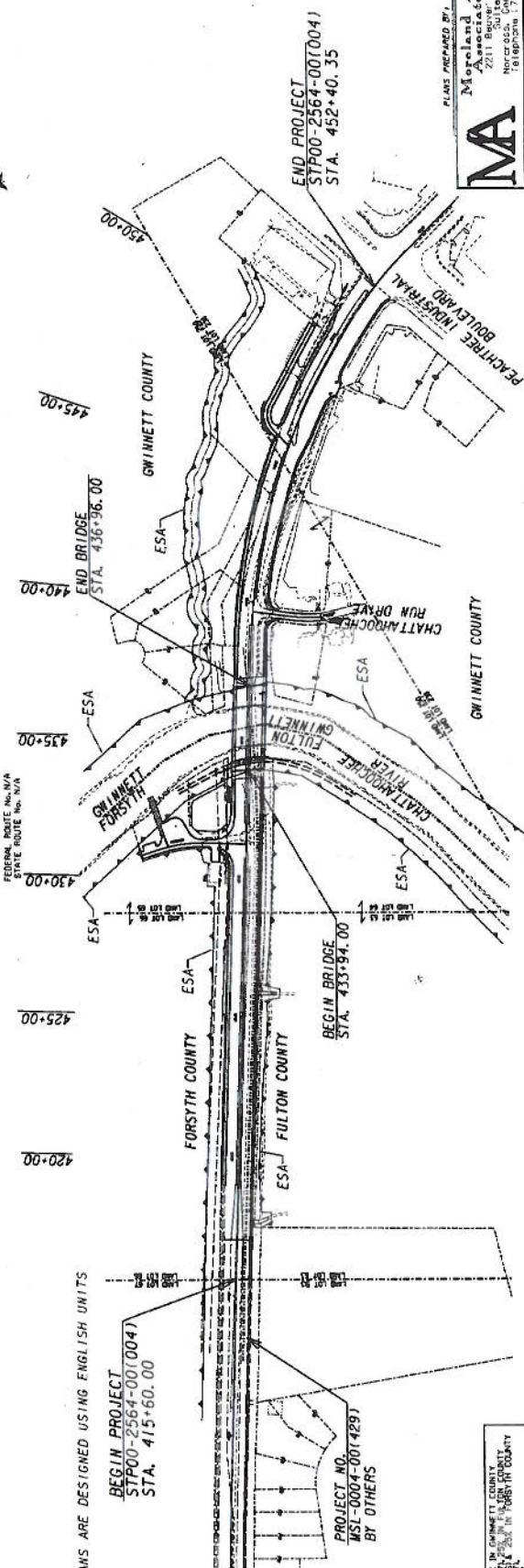
LOCATION SKETCH

NOTES: THE CO-ORDINATES LISTED ARE WEST ZONE  
GRID CO-ORDINATES BASED ON THE GEORGIA STATE PLANE  
COORDINATE SYSTEM. THE DATUM IS THE 1983  
HORIZONTAL DATUM 1983 AND 83  
VERTICAL DATUM 1983

NOTE: THESE PLANS ARE DESIGNED USING ENGLISH UNITS

BEGIN PROJECT  
STP00-2564-00(004)  
STA. 415+60.00

PROJECT NO.  
MSL-0004-00(729)  
BY OTHERS



PLANS PREPARED BY:  
**MA** Morland Associates, Inc.  
2211 Beaver Run Road  
Norcross, Georgia 30071  
Telephone 1-770-263-5445

DATE:	STATE ROAD AND AIRPORT DESIGN ENGINEER:
DATE:	CHIEF ENGINEER:
LOCATION AND DESIGN APPROVED:	DATE:
PLANS COMPLETED FOR P.P.T.R.:	JULY 31, 2007
PLANS COMPLETED FOR P.P.T.R.:	DECEMBER 26, 2007
PLANS COMPLETED:	REVISION DATE(S):

MIDPOINT COORDINATE
STATION 434+00.00
N 141°50'23"E
E 231°35'35"E

COUNTY NO.	117121235
LENGTH OF PROJECT	117121235
FULTON COUNTY	
GWINNETT COUNTY	
NET LENGTH OF BRIDGES	0.657
NET LENGTH OF PROJECT	0.657
CROSS LENGTH OF PROJECT	0.657

DESIGN DATA:	30,300	(2010)
TRAFFIC A.D.T.:	57,600	(2030)
TRAFFIC D.H.V.:	5,570	(2030)
DIRECTIONAL DIST.:	5545 %	
% TRUCKS:	3 %	
% 24 HR. TRUCKS:	4 %	
SPEED DESIGN:	45 MPH	



NOTE:  
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED  
ON TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO "STATE HIGHWAY DEPARTMENT OF TRANSPORTATION" MEANS  
THE STATE HIGHWAY DEPARTMENT OF GEORGIA MEAN AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.  
THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY WAY INDICATED HEREIN, WHETHER BY  
DRAWINGS OR NOTES OR IN ANY OTHER MANNER, ARE BASED UPON DATA THAT ARE NOT GUARANTEED AND DO NOT ROAD THE DEPARTMENT  
OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF THE RIDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.24, 102.25,  
AND 104.03 OF THE SPECIFICATIONS.